

July 2015

Hodgeman County

Estimated Economic Impact of Agriculture, Food, and Food Processing Sectors

A total of 7 agriculture, food, and food processing sectors were analyzed to determine their overall contribution to the Hodgeman County economy.¹ These 7 sectors have a total direct output of approximately \$154 million and support 462.7 jobs in Hodgeman County. Running the model for all 7 sectors simultaneously produces the following results:

Agriculture Contribution in Hodgeman County

Impact Type ²	Employment	% of Total Employment	Total Value Added ³	% of Gross Regional Product ⁴	Output ⁵	% of Gross Regional Product
Direct Effect	462.7	31%	\$46,979,319	54%	\$154,405,920	176%
Indirect Effect	164.9	11%	\$5,838,063	7%	\$14,174,080	16%
Induced Effect	49.8	3%	\$3,282,050	4%	\$6,071,949	7%
Total Effect	677.4	45%	\$56,099,431	64%	\$174,651,949	199%

As shown in the above table, agriculture, food, and food processing supports 677.4 jobs, or 45% of the entire workforce in the county. These industries provide a total economic contribution of approximately \$175 million, roughly 199% of Gross Region Product (GRP). As noted below in the calculation of Gross Regional Product, imports and institutional sales are subtracted. Therefore, counties that import a relatively large amount of goods and services will have a reduced GRP which may lead to agricultural output being greater than GRP.

Another metric used to calculate the importance of sectors in an economy is their value added as a percentage of GRP. Total value added by the 7 agriculture, food, and food processing sectors is approximately \$56 million, or 64% of the GRP. This indicates that personal income, business income, and taxes generated by these sectors account for 64% of the total economy.

The following tables document the overall summary numbers of the model, top industries affected by employment and output, and a listing of all industries that were analyzed.

¹ Article on building a contribution analysis in IMPLAN that avoids double counting:
https://implan.com/index.php?option=com_content&view=category&id=19

² Direct, indirect, and induced effects sum together to estimate the total economic contribution in the state. **Direct effects** capture the contribution from agricultural and food products. **Indirect effects** capture the economic benefit from farms and agricultural businesses purchasing inputs from supporting industries within the state. **Induced effects** capture the benefits created when employees of farms, agricultural businesses, and the supporting industries spend their wages on goods and services within the state.

³ Value Added = Labor Income + Indirect Business Taxes + Other Property Type Income

⁴ GRP = Final Demand of Households + Governments Expenditures + Capital + Exports - Imports - Institutional Sales

⁵ Output = Intermediate Inputs + Value Added

In the top ten by employment, Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming is the top employer in the agriculture industry with 217.5 employees. This table also shows the amount of jobs that are created by the agriculture industry in Hodgeman County.

Top 10 Industries Affected by Employment

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	217.5	\$83,139,759
Grain farming	93.5	\$48,276,366
Real estate.....	79.5	\$3,473,056
Veterinary services	59.7	\$2,639,959
All other crop farming.....	57.2	\$10,700,709
Dairy cattle and milk production.....	33.1	\$9,090,760
Wholesale trade.....	28.8	\$5,523,877
Securities and commodity contracts intermediation and brokerage	20.5	\$831,498
Support activities for agriculture and forestry	18.8	\$1,096,644
Monetary authorities and depository credit intermediation	12.1	\$1,806,370

The Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming industry directly contributes approximately \$83 million to Hodgeman County's economy. This table also shows how much revenue is generated in other industries by having a strong agriculture industry.

Top 10 Industries Affected by Output

Sector Description:	Total Employment	Total Output
Beef cattle ranching and farming, including feedlots and dual-purpose ranching and farming	217.5	\$83,139,759
Grain farming	93.5	\$48,276,366
All other crop farming.....	57.2	\$10,700,709
Dairy cattle and milk production.....	33.1	\$9,090,760
Wholesale trade.....	28.8	\$5,523,877
Real estate.....	79.5	\$3,473,056
Veterinary services	59.7	\$2,639,959
Owner-occupied dwellings	0.0	\$2,214,147
Monetary authorities and depository credit intermediation	12.1	\$1,806,370
Other local government enterprises	4.1	\$1,155,332

Below is a summary of all agriculture data with employment levels and output level. These values can tell how many jobs are represented by each agriculture sector and the output they contributed to Hodgeman County's economy.

[illegible]

All 105 counties in Kansas have IMPLAN models with an agriculture contribution summary. These values do not factor in the retail environment of food sales. Food retail is important, but in order to provide the most accurate picture of what production agricultural and processing contributes to Kansas, the retail sector was omitted.